



Owner's Manual

Orpheus Loudspeakers.

Thank you for purchasing Orpheus Loudspeakers.

We hope you will derive many years of listening pleasure from your speakers and offer you the following guide to help assist you in achieving optimum performance.

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Ancillary Equipment.

The Orpheus range of loudspeakers are high quality sound reproducers and as such will benefit greatly when associated with refined ancillary equipment. Since they are extremely accurate and detailed, they will reveal sources of distortion generated elsewhere in the system.

CD Player/Turntable Requirements.

The quality of the source is one of the most crucial links in the hi fi chain. The old adage "garbage in, garbage out" certainly applies here - any shortcomings in the source are going to be amplified before being sent to the speakers.

Amplifier Requirements.

When selecting an amplifier the most important thing to keep in mind is that sound quality is usually much more important than sound quantity. Almost everyone will be happier with a 50 watt amplifier of high sonic quality than with a 200 watt amplifier of mediocre sonic quality.

It is also of importance however, to have enough power to produce sound at the level you desire without distortion. If the amplifier is asked to exceed its maximum power output, it will produce overload distortion (clipping). The sound will become compressed, strained and in extreme cases, obviously distorted. This distortion is actually non-musical additional energy, and since it is concentrated in the high frequency region where the speaker is least able to handle it, tweeters can be burnt out. If the system does not play as loudly as required without becoming distorted, a larger amplifier is suggested.

Speaker Cable.

The loudspeakers must be connected to the amplifier with good quality cables, preferably kept as short as possible. As the choice of cable is a means of fine tuning the system, we make no specific recommendations. Your Orpheus dealer will be able to advise on the suitability of various cables.

The Listening Room.

The room in which a speaker is used has a great deal of influence on its performance. In general the problem areas are resonances, spurious reflections and excessive absorption of particular frequencies.

The major resonances are usually standing waves. A standing wave occurs when sound bounces back and forth between two walls or similar solid surfaces. As the frequency at which a standing wave occurs is related to the distance between the walls, every room will have its own individual set of resonances. At each resonant frequency the sound will receive strong reinforcement and colouration may result. If the resonant frequencies are closely spaced (as occurs in square and box shape rooms), the colouration might take on an unpleasant booming quality.

Treatment to minimise the effect of standing waves is complex and usually costly. It is possible, however, to minimise the worst effects by careful positioning of the speakers within the room. The presence of large pieces of furniture such as lounge chairs may assist to break up severe standing waves.

Spurious reflections of high frequencies, caused by hard surfaces or a large expanse of glass may take on a bright perhaps aggressive quality. This can often be cured by adding drapes, rugs, tapestries or even books.

If a room is heavily furnished it may become over-damped, the resulting sound being dull and lifeless. Repositioning of some furnishings (dare we mention removal of!) may be needed to add some sparkle.

Speaker Placement.

It is recommended that all Orpheus models be situated at least 50cm from the rear and side walls, though distances greater than this will invariably improve performance.

The distance between the speakers is dependent on room dimensions and the distance the listener is from the speakers. In most situations, the distance between the speaker should range from 2 to 3 metres.

The angle of speaker placement is again dependent on the listening room. Initially try each speaker facing the central listening position, then experiment by angling inwards then outwards until the most suitable angle is found.

Since every listening room is different, we encourage you to experiment with your speaker placement to achieve the best results.

Speaker Stands

We recommend open framed, spiked metal stands that are rigidly constructed and elevate the speaker to the approximate listening axis. The speaker should be mounted on spikes or bonded to the stand with "Blu.Tack", as this will "couple" the speakers rigidly to the stand. The stand should then be mounted on spikes to floor. For polished wood or other feature floors, where spikes are likely to cause damage, place a small coin under the point of each spike.

Electrical Connection.

The terminals at the rear of the loudspeakers are colour-coded red (positive) and black (negative).

Phasing.

For stereo operation it is necessary that your system is in phase. Reversal of leads on either channel at cartridge or one loudspeaker will render the system out of phase. This will cause a vague stereo

image and a lack of bass response due to phase cancellation.

Bi-Wiring.

All Orpheus loudspeakers are bi-wired. They have 2 sets of terminals. The top set of terminals are connected to tweeters via the treble crossover network. The bottom set of terminals are connected directly to the bass/midrange crossover network.

'Bi-wiring' allows one pair of speaker cables to be dedicated to the tweeter and another pair to be dedicated to the bass/midrange. Both sets of cables are connected together at the amplifier terminals.

When bi-wired, the speakers sound more "open" and transparent, with more air around the instruments.

Although the Orpheus timber range were designed to be bi-wired, they may be used with a single pair of speaker cables by bridging the two red terminals with a piece of speaker cable and the two black terminals with another piece of cable. A note of warning, never under any circumstances, should a red terminal be connected to a black terminal, as this will cause amplifier damage.

Running In.

All loudspeakers will require a certain amount of "running-in" to allow the speaker suspensions to loosen up. This will occur naturally as you play the speakers. Throughout this period you will observe a gradual opening of the sound stage, the bass will become more tuneful, and high frequencies will become sweeter.

Power Handling.

The question of power handling is a great deal more complex than saying that this speaker will handle 50 watts and that one 100 watts. If you were to ask an audio engineer how much power a speaker will handle, he would ask you to specify the frequency and shape

of the signal waveform before he could provide you with answer. If the signal is music the waveform frequency and shape will change constantly with each instant of time and the engineer would not be able to give you an answer. There would be a different answer for each instant it was sampled.

Fortunately, it is not necessary to worry unduly about power handling. It is possible to connect say a 50 watt speaker with a 200 watt amplifier and through judicious use of the volume control have no problems at all. Obviously, if the volume control was set to maximum, it would guarantee you a problem. Common sense should be ample protection. Set the volume control at the position where a comfortable listening level is achieved. If the speaker begins to sound strained or uncomfortable, reduce the volume setting a little.

Something that many people find hard to accept is that a low powered amplifier is more likely to damage speakers than a powerful one. A powerful amp will be working well within its capabilities where a less powerful one may be producing its maximum power. When there is a transient, the powerful amplifier will have something in reserve, whereas the lower powered amplifier will have no such reserve and the transient will attempt to push it beyond its capabilities. The amplifier will then produce large amount amounts of distortion which in turn is very likely to damage the drive units.

The moral is to treat low powered amplifiers with caution and cast aside all thoughts of power handling when you make your choice of amplifier.

Yours in fidelity.

TOP

MIDDLE

AUDAX

HT 170G2

BATCH #

04109

101201 E

HT 170G2

BATCH # 04411

101201 E

AUDAX TOP SPEAKER

HT 170G2

BATCH #

04411

101201 E

MIDDLE SPEAKER

HT 170G2

BATCH #

04109

101201 E

MC 95226165

A400[↑]

CD MZ009331032079